

PHILOSOPHY

Evolution Extended to Include Intelligence as Prime Factor

DARWINIAN evolution was extended to include the action of human intelligence, and science was called upon to cooperate with education and religion to apply ethics to the solution of the world's current problems, in the retiring presidential address before the American Association for the Advancement of Science delivered by Dr. Edwin Grant Conklin, professor emeritus of biology at Princeton, executive officer of the American Philosophical Society, and president of Science Service.

Terming "dull and fruitless" attempts to make science the handmaiden of religion, Dr. Conklin emphasized that science was vitally concerned with ethics, the religion of science."

Like Religious Teachings

The words expressing the ethics of the great scientists, among them Pavlov, Pasteur, and Tyndall, were shown by Dr. Conklin to contain ideals of conduct and character similar to those taught by great religious leaders. Often the substitution of the word "Truth" for "God" will bring them into agreement.

Militarists and dictators have no right to seize upon Darwin's principle of natural selection as justification of their philosophy that might makes right, Dr. Conklin warned.

"Darwin himself repudiated this extension of his principle to the struggle between races and nations of men," Dr. Conklin said. "Those who attempt to extend it into the field of intellectual, social and moral qualities should remember that the standards of fitness are wholly different in these fields. Physically the fittest is the most viable and most capable of leaving offspring; intellectually the fittest is the most rational; socially the fittest is the most ethical. To attempt to measure intellectual or social fitness by standards of physical fitness is hopelessly to confuse the whole question, for human evolution has progressed in these three distinct paths. Man owes his unique position in nature to this three-fold evolution, and although the factors of physical, intellectual and social progress are always balanced one against another, they are not mutually exclusive."

Intelligence has become a prime factor in evolution. Human selection, as

practiced either by the hit or miss process of "trial and error" or the vastly more rapid and less wasteful method of remembered experience, is just as natural as the "natural" variety to which Darwin devoted most attention. We are continually improving on nature, as shown in agriculture, industry, medicine and education.

Dr. Conklin, urging this naturalness of intelligence, also upheld "free will," the freedom to choose between alternatives that are offered, without which there can be no responsibility, no duty, no ethics. But he emphasized that the will is not undetermined, uncaused, absolutely free, but is the result of the organization and experience of the organism, and in turn is a factor in determining behavior.

Biologists do not have to go within the atom and espouse Heisenberg's principle of indeterminacy to explain free will. "The fact that man can control to a certain extent his own acts as well as phenomena outside himself requires neither a little daemon in the electron nor a big one in man."

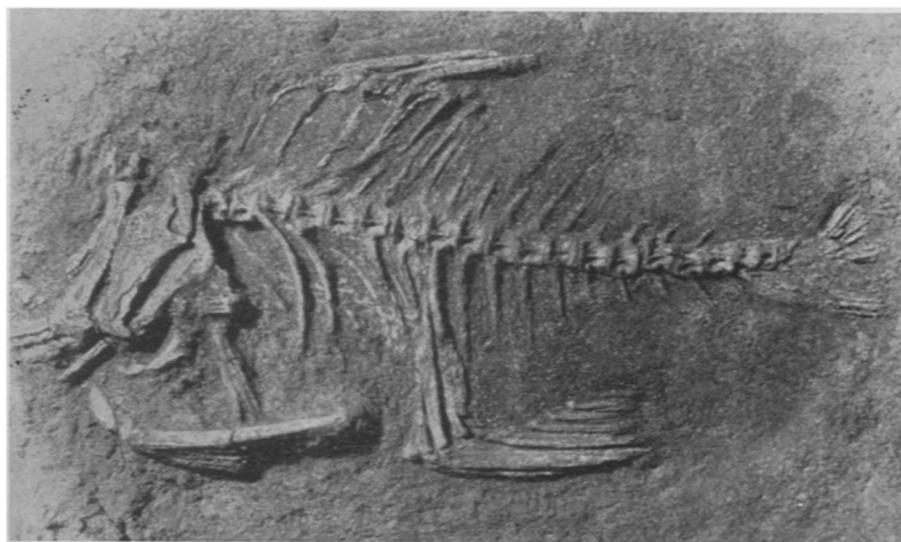
Admitting that neither in human nature nor in social relations has progress kept pace with science, Dr. Conklin de-

clared this the fault of man and society rather than science. Human nature lags behind scientific progress. How to remedy this? Dr. Conklin discards heredity and eugenics as too slow a process. Education, he concludes, based on a knowledge of the principles of development and aimed at the cultivation of better relations among all classes, races and nations, is the chief hope of social progress.

To the recent attack by Dr. Robert Maynard Hutchins, University of Chicago president, that science is a failure in the educational process, Dr. Conklin replied:

"Those who have never experienced the discipline and ennobling effects of scientific studies fear that science will destroy our civilization and are calling upon educators to repent and to return to the good old subjects of classical learning. It was not science that caused the decay of former civilizations, nor was it in the power of classic art, literature and philosophy to save those civilizations. Certainly there are no other studies than science that distinguish so sharply truth from error, evidence from opinion, reason from emotion; none that teach a greater reverence for truth or inspire more laborious and persistent search for it. Great is philosophy, for it is an attempt at a synthesis of all knowledge, but if it is true philosophy it must be built upon science which is tested knowledge."

All who believe freedom and responsibility are essential to all progress were called upon by Dr. Conklin to use their



15,000,000 YEARS OLD

During amber mining operations in East Prussia, a seabass skeleton was found in a layer of earth which geologists estimate to be 15,000,000 years old. It was discovered in the "green wall" above the "blue earth" of the Palmnicken Amber Mines.